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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/695,889	10/28/2003	Gautam Ghose	00121-000700000	7789

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Law Office Of Leland Wiesner
1144 Fife Ave.
Palo Alto, CA 94301

EXAMINER	
CHU, GABRIEL L	

ART UNIT	PAPER NUMBER
2114	

MAIL DATE	DELIVERY MODE
11/20/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/695,889	GHOSE ET AL.	
	Examiner	Art Unit	
	Gabriel L. Chu	2114	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 September 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4,6-16,18-21 and 23-36* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,6-16,18-21 and 23-36* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *28 October 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. **Claims 1-4, 6-11, 18-21, 23-26, 33 rejected under 35 U.S.C. 103(a) as being unpatentable over US 5666481 to Lewis in view of US 20020019922 to Reuter et al. and US 6629266 to Harper et al.**

3. **Claims 12-16, 27-32, 34, 36 rejected under 35 U.S.C. 103(a) as being unpatentable over US 5666481 to Lewis in view of US 20020019922 to Reuter et al. and US 6336139 to Feridun et al. and US 6446218 to D'Souza.**

4. **Claim 35 rejected under 35 U.S.C. 103(a) as being unpatentable over US 5666481 to Lewis in view of US 20020019922 to Reuter, "threshold" by IEEE, and "graphical user interface" by Microsoft Computer Dictionary (herein MSCD) and US 6629266 to Harper et al.**

5. As no significant amendment has been made and same grounds are applied, for the sake of brevity, Examiner will address any difference in claim language below in addressing the arguments. For the body of these rejections, refer to the previous office action.

Response to Arguments

6. Applicant's arguments filed 12 September 2007 have been fully considered but they are not persuasive.

7. Firstly, regarding the additional "according to one or more rules" language amended in each independent claim, this is not viewed to provide any distinction over the already provided art. Applicant should note that the art accepted terms of "rules-based" and "case-based" reasoning has not actually been used herein. However, even had they been applied, whether the claims would present any distinguishing feature over the prior art would remain to be seen. Note that the claims disclose specifying a pattern which is a combination of **one** or more "error events" in order to identify an "error action", "according to **one** or more rules". The emphasis is merely to highlight the fact that the claims do not even require a plurality of such rules or events. Applicant, understanding case-based reasoning, should note the claims bear a marked similarity to case-based reasoning in general, e.g., what is disclosed in Lewis. Insofar as a "rule" is "a prescribed guide for conduct or action" (among other relevant definitions), that Lewis can retrieve related trouble tickets makes it clear that one or more "rules" are being applied, and that such trouble tickets form the "base" of patterns that are thusly specified. Further, it should be clear that Lewis applies resolutions based on such "rules". See, for example, the main figure of Lewis.

Indeed, Applicant should note with understanding the broadness of the claim language and the seemingly non-specific application of this error resolution technique. This view is further addressed by Examiner in responding to Applicant's arguments against combination (both previously and herein). Indeed, much of Applicant's arguments appear to be merely reiterating previous arguments, and as such will not be

repetitively addressed herein. For any argument that Applicant feels is not specifically addressed herein, Applicant is advised to refer to a previous office action.

8. Secondly, regarding claim 32's "one or more additional" and "and the alternate failure anlaysis module" language, these amendments appear to have been made in response to Examiner's 112, second paragraph rejection. Regardless, Examiner further points out that the rejection previously applied already accounts for the amendment, as D'Souza already provides for a plurality of backups.

9. Referring to Applicant's argument (page 13) that Lewis does not address SANs, this is why Reuter is combined with Lewis and has been addressed previously. As a matter of fundamental underlying technology, Examiner hopes Applicant can appreciate that the specific networks addressed in Lewis are for *data* communication and that any such SAN is also for data communication.

10. Referring to Applicant's argument (page 13) that "the actual errors in the network causing the network condition are not known to the user and not recorded in the trouble ticket system", even more, Applicant appears to be merely claiming a case-based reasoning system. Regardless, whatever Applicant is assuming an "actual error" is, this is not claimed. All that is claimed is an "error event", which is an event of/for/regarding/etc... an error. This may be a throwback to Applicant's attempt to claim "root cause analysis".

11. Referring to Applicant's argument (page 13) that Lewis excludes RBR, see paragraphs 7 above.

12. Referring to Applicant's argument (page 14) regarding Graham v. Deere and KSR, Applicant appears to have merely applied boilerplate language without any actual argument.

13. Referring to Applicant's argument (page 15) that Lewis does not initialize the failure analysis modules, Applicant apparently argues that *rules* for the modules are not initialized. See, for example, paragraphs 7. Further, it is difficult to imagine how anything can come into existence without a starting point. Computer logic most certainly is initialized at some point with the relevant data, and this is most certainly the case in Lewis.

14. Referring to Applicant's argument (page 15) that Lewis does not identify predetermined errors actions and error events but instead uses case-based reasoning, see paragraphs 7 and 10 above.

15. Referring to Applicant's argument (page 16) that Lewis and Reuter deal with "non-office action art", apparently referring to KSR, Applicant then argues that these references are not in the relevant field of endeavor. The KSR ruling teaches that any person of ordinary skill would have looked to any relevant technology in searching for solutions that meet some need, and indeed, Examiner need only show that such a person *could* have looked to the relevant technology. Applicant appears to be arguing that for some generic environment such as a SAN, a person having ordinary skill could *not* have known to look to trouble tickets for generic problem resolution. Applicant should re-read Applicant's claims and note that outside of specifying an environment and location of logic, the claims do not directly pertain to SAN in any way whatsoever.

For such a broad indication of what Applicant believes to be patentable, Examiner has no doubt that a complex system such as a SAN could have and would have prompted any person of ordinary skill to look to any such complex environment problem resolution technique. Lewis provides one such obvious solution and Reuter indicates that a particular complex environment could/would have needed such problem resolution and one obvious location where such problem resolution logic may be located.

As for "explicit" analysis and "teaching, suggestion, motivation", Examiner has already provided this in Graham v. Deere analysis found in the rejections.

16. Referring to Applicant's argument (page 16) regarding communications networks versus SANs, see paragraphs 9 and 15.

17. Referring to Applicant's argument (page 17) that the art is not from the same field of endeavor and is not reasonably pertinent to the problem to be solved, see paragraphs 9, 10, 15, 16.

18. Referring to Applicant's argument (page 17) that Examiner has equated handling "page faults" in Reuter with "errors" in Lewis, Applicant should read Reuter and note that words such as "failure" also appear in Reuter, the point being that Applicant has apparently failed to fully grasp the scope of Reuter. Regardless, Applicant should note that any such error/fault/failure in a SAN such as one disclosed in Reuter also produces symptoms, not unlike those used in Lewis, which may be used in fault diagnosis. Applicant should further note that, significantly, the main point of Reuter is just to show that a particular complex environment may be a SAN comprising a storage virtualization controller. Any further technologies and embodiments of Reuter may not be, and

probably are not, necessary in showing obviousness. Applicant has failed, as previously noted by Examiner, to claim in any meaningful way the significance of such a SAN environment. As such, it is treated as an obvious variant to a well known technique.

19. Referring to Applicant's argument (page 19) that Reuter is not concerned with processing scenarios/errors that may occur on a SAN, this should further serve as indication that it poses a need in Reuter to actually be able to handle errors. This was also addressed previously. And again, see paragraph 18.

20. Referring to Applicant's argument (page 19) that claim 17 was previously objected to, this is clearly not the case presently.

21. Referring to Applicant's argument (page 20) that Examiner noted that "Lewis does not teach...", Applicant has failed to indicate that this was the preface for a rejection based on the combination of references as is done in Graham v. Deere analysis. See paragraph 15.

22. Referring to Applicant's argument (page 21) that "it cannot be expected that one skilled in the art would try to perform a comparison temporally in the fashion described in claim 12 as there is much more than a finite number of solutions", this is clearly not the case. By one view, there are two solutions: with or without temporal comparison. As time-wise analysis for many purposes is a well known technique, it would have been one extremely obvious technique to attempt in refining results.

Regardless, the "finite number of solutions" test as devised under the KSR ruling is but one of explicitly many such tests that an examiner may apply in determining obviousness. Even had there been "more than a finite number of solutions", this does

not preclude the obviousness of one specific problem resolution technique with one specific environment. Trouble ticketing is an extremely well known and understood method of resolving problems in complex environments, of which SANs are only one obvious example, and time-wise analysis of relevant data is a further obvious technique to apply to diagnostics, of which many examples may be found, and obvious results may be expected (refining results or producing more accurate results).

23. Referring to any further request for interview (e.g., page 22), Examiner believes that there is sufficient justification (as evidenced by the results of the previous two interviews) to believe that any further interviews will not further prosecution, and as such, Examiner preemptively declines. Applicant is instructed to conduct prosecution in written responses to office actions only.

Conclusion

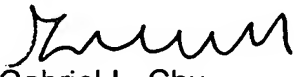
24. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gabriel L. Chu whose telephone number is (571) 272-3656. The examiner can normally be reached on weekdays between 8:30 AM and 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Scott Baderman can be reached on (571) 272-3644. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Gabriel L. Chu
Primary Examiner
Art Unit 2114

gc